

June 3, 2014

MiniPreps of MACH Cells Expressing Fluorescence

Purpose: To isolate plasmid DNA from MACH cells

Table 1. Concentrations of Plasmid DNA Isolated

Sample	Concentration (ng/ μ L)
BFPH	66.6
eGFP	128.9
YFP	51.1
OFP	80.0
RFP	120.8
SuperNova	128.1

Protocol from GeneJet Plasmid Miniprep kit:

<http://www.thermoscientificbio.com/uploadedfiles/resources/k0502-product-information.pdf>

TECAN

Purpose: To measure fluorescence from MACH Cells

Cell Cultures of MACH Cells for Fluorescence:

- 3 mL LB and 300 μ L cell culture at 10:45 AM
- Time point 1: 12:45 PM
- Time point 2: 4:45 PM
- To analyze fluorescence at given time points
- In Row D: 50 μ L cell culture (at time point 1)
- Used the following parameters to observe the gain and brightness of the following fluorescent proteins:

Table 2. Parameters Used to Analyze Fluorescent Proteins using TECAN

Fluorescent Protein Sample	Excitation Wavelength (nm)	Emission Wavelength (nm)
BFPH	399	456
eGFP	488	509
YFP	514	527

OFP	548	562
RFP	584	607
SuperNova	579	610

- Note: Data Uploaded to Dropbox under Notebook

Transformation of MACH Cells with BBa_J23101, BBa_J23115 and BBa_E0240 Plasmids

Purpose: Interlab Measurement Study

- 5 µl of plasmid DNA
- Plasmids: BBa_J23101, BBa_J23115, BBa_E0240
- Plate 400 µl transformants on LB + CAM plates
- Incubate at 37 °C overnight

iGEM Transformation Protocol: <http://parts.igem.org/Help:Protocols/Transformation>